

Appendix B: Biological Resources Impact Analysis

**Biological Resources Impact Analysis
KBRT, Oak Flat Tower
Unincorporated Orange County, California**

Prepared for:

EBI Consulting

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SECTION 1: INTRODUCTION

This report contains the findings of a Biological Resources Impact Assessment conducted by Michael Brandman Associates (MBA) on a proposed Crawford Broadcasting Company radio tower facility, KBRT, in Orange County, California. The project site occurs within the Temescal Mining Claim, surrounded by the Cleveland National Forest, and is located at the confluence of Black Star Canyon Road and Skyline Drive, in unincorporated Orange County. The site is depicted on the Black Star Canyon, California U.S. Geological Survey (USGS) 7.5-minute topographic map. The proposed project generally includes constructing 4 radio towers, each with its own equipment cabinet, and a separate pre-fabricated equipment building.

The project site was surveyed on June 10, 2010 by qualified MBA biologist Tommy Molioo. The biological resources within the project site are described in terms of plant communities and jurisdictional drainage features. A literature review provided information regarding sensitive plant and wildlife species potentially occurring within the project site and immediate vicinity. Based on current site conditions and suitable habitat requirements of sensitive species, this report provides an assessment of the sensitive resources found on the site and analyzes the biological significance of the site in view of federal, state, and local laws and policies.

SECTION 2: METHODOLOGY

2.1 - BIOLOGICAL RESOURCES

Data regarding biological resources on the project site were obtained through a literature review that included data on biological resources in the project vicinity, and applicable reference materials provided by Environmental Assessment Specialists (EAS). The primary objective of the assessment was to document the existing conditions of the onsite biological resources.

Sensitive biological resources present, or potentially present, onsite were identified through a literature review using the following resources: California Department of Fish and Game (CDFG 2010), California Natural Diversity Data Base (CNDDDB 2010), and the California Native Plant Society (Tibor 2001 and CNPSEI 2008). For the purpose of this report, “sensitive” or “special status” species are those plant or wildlife species that are federally and/or state listed species, proposed for listing, or candidate species.

An initial review indicated that the project site is located within a disturbed, generally flat area along a ridge in the Cleveland National Forest. Tommy Molioo conducted the biological assessment field survey to document existing conditions and to determine potential impacts to sensitive biological resources based on current site plans. The survey was conducted on foot making note of biological resources, such as plant and wildlife species, on field data sheets. These data sheets are included in Appendix A. Special attention was paid to plant communities to determine the presence or potential occurrence of any sensitive species that may occur on the project site.

SECTION 3: EXISTING CONDITIONS

3.1 - SITE DESCRIPTION

The biological assessment field survey of the project site was conducted on June 10, 2010. Weather conditions included a temperature of approximately 75 degrees Fahrenheit with winds between 2 and 5 miles per hour, and clear skies. The project site is specifically located immediately west of the confluence of Black Star Canyon Road and Skyline Drive, within portions of Assessor's Parcel Number (APN): 085-621-02 and 085-621-06, in unincorporated Orange County, California. The surrounding land use consists of Cleveland National Forest land to the north, south, east, and west.

The proposed project generally consists of constructing radio towers and an equipment shelter, installing underground utility lines, demolition of an existing abandoned radio broadcast building and associated creosote poles, and maintenance/repair of the existing dirt roads on-site. Four radio towers will be constructed at separate locations within the project site (Exhibit 5). Each radio tower will be enclosed within a 10-foot tall brick shelter with three guy wires supporting the top of each radio tower. A 45-foot by 41-foot pre-fabricated equipment building will be constructed between the radio towers and underground utility trenching will connect each radio tower with the utility connection point along Black Star Canyon Road. An existing abandoned radio broadcast building is located on a hill to the northwest of the project site, and will be demolished during project construction, along with the associated creosote poles adjacent to the abandoned building, as specified in the "Site Development Permit Application" packet provided to EBI Consulting.

The existing dirt access roads surrounding the project site will be repaired and improved where necessary to allow adequate access to the project site during the construction and maintenance phases of the proposed project. Although the current site plans depict that existing and abandoned roads will be relocated for the project, correspondence with Crawford Broadcasting on August 23, 2010, clarified that road maintenance/repair would be limited to backfill of trenching and restoration of the original grade and would not in any event impact the area on either side of any road.

Regarding APN 085-621-09, this is the small parcel included within the property boundaries at the northeast corner of the project site. No construction activities associated with the proposed project will take place on that parcel. All trenching on adjacent parcels will take place within the boundaries of the improved road easements and will not cause any disturbance to land on either side of the roads. All guy wires will be on Kiertron property and will not impact adjacent parcels.

3.2 - SOILS

The soils on the project site consist primarily of Anaheim clay loam with a small portion of the site consisting of Yorba cobbly sandy loam (Exhibit 4). Cieneba sandy loam, and Exchequer-rock outcrop complex occur in the vicinity of the project site. The observed soils on the majority of the project site have been previously disturbed and compacted as a result of grading for construction of nearby structures, rural residences and associated dirt access roads. The proposed project, including utility trenching, will result in minimal impacts to the soils on site.

3.3 - PLANT COMMUNITIES

The project site occurs within a disturbed open area located along a ridge, south of Sierra Peak. The majority of the proposed project occurs on a slightly sloping, west-facing area dominated by non-native grassland and disturbed areas consisting of bare ground. Dominant plant species observed within the project site include wild oat (*Avena fatua*), red brome (*Bromus rubens*), perennial rye grass (*Lolium perenne*), reed canary grass (*Phalaris arundinacea*), Russian thistle (*Salsola tragus*), short-podded mustard (*Hirschfeldia incana*), ripgut (*Bromus diandrus*), and tocalote (*Centaurea melitensis*). Scattered native species were observed within the non-native grassland community on site, as well as within native habitat surrounding the project site. Native species observed on and surrounding the project site include coastal goldenbush (*Isocoma menziesii*), California buckwheat (*Eriogonum fasciculatum*), slender buckwheat (*Eriogonum gracile*), common tarweed (*Deinandra fasciculata*), golden yarrow (*Eriophyllum confertiflorum*), toyon (*Heteromeles arbutifolia*), white sage (*Salvia apiana*), deerweed (*Lotus scoparius*), chaparral yucca (*Hesperoyucca whipplei*), and scrub oak (*Quercus berberidifolia*). A complete list of plant species observed on or in the vicinity of the project site can be found in Appendix A: Field Data Sheets.

3.4 - WILDLIFE OBSERVED

The project site and surrounding area provide habitat for wildlife species that commonly occur in upland, disturbed, non-native grassland, chaparral and sage scrub habitats. No fish, amphibian, reptile, or mammal species were observed or detected during the biological assessment field survey. Avian species observed onsite include:

- California towhee (*Pipilo crissalis*)
- spotted towhee (*Pipilo maculatus*)
- turkey vulture (*Cathartes aura*)
- western scrub jay (*Aphelocoma californica*)
- American crow (*Corvus brachyrhynchos*)
- Anna's hummingbird (*Calypte anna*)

A complete list of wildlife species observed on or in the vicinity of the project site can be found in Appendix A: Field Data Sheets.

3.5 - SENSITIVE BIOLOGICAL RESOURCES

Special Status Species

Special status species are native species that have been accorded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

The U.S. Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (ESA). The ESA provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The ESA defines as “endangered” any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is a species that is likely to become endangered in the foreseeable future. A “proposed” species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Section 9 of the ESA prohibits “take” of threatened or endangered species. The term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. Take can include disturbance to habitats used by a threatened or endangered species during any portion of its life history. The presence of any federally threatened or endangered species that is in a project area generally imposes severe constraints on development, particularly if development would result in “take” of the species or its habitat. Under the regulations of the ESA, the USFWS may authorize “take” when it is incidental to, but not the purpose of, an otherwise lawful act.

The California Department of Fish and Game (CDFG) administers the California Endangered Species Act (CESA). The State of California considers an “endangered” species one whose prospects of survival and reproduction are in immediate jeopardy, a “threatened” species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management, and a “rare” species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. “Rare” species applies to California native plants. State threatened and endangered species are fully protected against take, as defined above. Species of Special Concern is an informal designation used by CDFG for some declining wildlife species that are not state candidates. This designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFG.

The California Native Plant Society (CNPS) has developed an inventory of California's sensitive plant species (Tibor 2001). This inventory summarizes information on the distribution, rarity, and endangerment of California's vascular plants. The inventory is divided into four lists based on the rarity of the species. In addition, the CNPS provides an inventory of plant communities that are considered sensitive by the state and federal resource agencies, academic institutions, and various conservation groups. Determination of the level of sensitivity is based on the number and size of remaining occurrences as well as recognized threats.

Sensitive habitats are natural communities that support concentrations of sensitive plant or wildlife species, are of relatively limited distribution, or are of particular value to wildlife (CNDDDB 2010). Sensitive habitats are not afforded legal protection unless they support protected species, except for wetland habitats, which cannot be filled without authorization from the U.S. Army Corps of Engineers (USACE) and CDFG.

The following discussion describes the special-status plants, wildlife, and habitats that have been afforded special recognition by federal, state, or local resource agencies or organizations and are known to occur in the region of the project site. Sources used for the classification of sensitive resources are as follows:

- Plants - California Department of Fish and Game (CDFG 2010), California Natural Diversity Data Base (CNDDDB 2010), and California Native Plant Society (Tibor 2001 and CNPSEI 2010)
- Habitats - CNDDDB (2010), Holland (1986)
- Wildlife - CDFG (2010), CNDDDB (2010)

A review of the CNDDDB and the CNPS Electronic Inventory of Rare and Endangered Vascular Plants resulted in a list of 17 sensitive plant species, 30 sensitive wildlife species, and 10 sensitive plant communities that occur within the Black Star Canyon and adjacent Corona South, California USGS topographic quadrangles.

The sensitive plant species include:

- Allen's pentachaeta (*Pentachaeta aurea* ssp. *allenii*)
- Braunton's milk-vetch (*Astragalus brauntonii*)
- Chaparral sand-verbena (*Abronia villosa* var. *aurita*)
- Heart-leaved pitcher sage (*Lepechinia cardiophylla*)
- Intermediate mariposa-lily (*Calochortus weedii* var. *intermedius*)
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)
- Malibu baccharis (*Baccharis malibuensis*)
- Many-stemmed dudleya (*Dudleya multicaulis*)
- Payson's jewel-flower (*Caulanthus simulans*)
- Peninsular nolina (*Nolina cismontana*)
- Plummer's mariposa-lily (*Calochortus plummerae*)
- San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)
- Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*)
- Santiago Peak phacelia (*Phacelia suaveolens* ssp. *keckii*)
- Tecate cypress (*Callitropsis forbesii*)
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*)
- White-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*)

The project site does not provide suitable habitat for any sensitive plant species listed above. The lack of suitable soil conditions and high amount of previous disturbance significantly reduces the potential for sensitive plant species to occur on site.

The sensitive wildlife species include:

- Arroyo toad (*Anaxyrus californicus*)
- California mountain kingsnake (*Lampropeltis zonata*)
- California horned lark (*Eremophila alpestris actia*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- Coast Range newt (*Taricha torosa torosa*)
- Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)
- Coastal California gnatcatcher (*Poliophtila californica californica*)
- Coastal whiptail (*Aspidoscelis tigris stejnegeri*)
- Cooper's hawk (*Accipiter cooperii*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Long-eared owl (*Asio otus*)

- Northern leopard frog (*Lithobates pipiens*)
- Northern red-diamond rattlesnake (*Crotalus ruber ruber*)
- Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- Orange-throated whiptail (*Aspidoscelis hyperythra*)
- Pallid bat (*Antrozous pallidus*)
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*)
- San Diego fairy shrimp (*Branchinecta sandiegonensis*)
- Santa Ana sucker (*Catostomus santaanae*)
- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Stephens' kangaroo rat (*Dipodomys stephensi*)
- Two-striped garter snake (*Thamnophis hammondi*)
- Western mastiff bat (*Eumops perotis californicus*)
- Western pond turtle (*Actinemys marmorata*)
- Western spadefoot (*Spea hammondi*)
- Western yellow bat (*Lasiurus xanthinus*)
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
- White-tailed kite (*Elanus leucurus*)

The disturbed non-native grassland community on site provides poor quality habitat for any of the sensitive wildlife species listed above. Additionally, based on recorded occurrences in the vicinity of the project site and high degree of disturbance on site, the potential for any sensitive species to occupy the project site is significantly reduced.

The sensitive plant communities include:

- California walnut woodland
- Riversidean alluvial fan sage scrub
- Southern California Arroyo chub/Santa Ana sucker stream
- Southern coast live oak riparian forest
- Southern cottonwood willow riparian forest
- Southern interior cypress forest
- Southern riparian forest
- Southern riparian scrub
- Southern sycamore alder riparian woodland
- Southern willow scrub

No CNDDDB-listed sensitive plant communities occur on the project site.

3.6 - JURISDICTIONAL AREAS

The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetlands and non-wetland bodies of water that meet specific criteria. USACE regulatory jurisdiction pursuant to Section 404 of the federal Clean Water Act is founded on a connection or nexus between the water body in question and interstate commerce. This connection may be direct through a tributary system, linking a stream channel with traditional navigable waters used in interstate or foreign commerce, or may be indirect, through a nexus identified in the USACE regulations.

Waters of the U.S.

USACE jurisdiction over non-tidal waters of the United States extends laterally to the ordinary high water mark (OHWM) or beyond the OHWM to the limit of any adjacent wetlands, if present (33 CFR 328.4). The OHWM is defined as “that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area” [33 CFR 329.11(a) (1)]. Jurisdiction typically extends upstream to the point where the OHWM is no longer perceptible. Recently, the federal courts have restricted USACE jurisdiction over waters that are not directly connected to traditional navigable waters (isolated waters), thereby increasing the focus on clearly establishing the physical connection between the subject water body(ies) as a tributary to traditional navigable waters or otherwise by directly establishing the nexus with interstate commerce.

During the biological assessment survey, the site was evaluated according to the guidelines provided in the USACE’s “A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States” August 2008 (A Delineation Manual). Waters of the U.S. were absent from the site; no water bodies having a perceptible OHWM were identified on site or adjacent to the site.

Wetlands

The USACE and EPA define “wetlands” as “areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions.” In order to be considered a jurisdictional wetland under Section 404, an area must possess three wetland characteristics: hydrophytic vegetation, hydric soils, and wetland hydrology. Each characteristic has a specific set of mandatory wetland criteria that must be satisfied in order for that particular wetland characteristic to be met. Several parameters may be analyzed to determine whether the criteria are satisfied.

The project site and immediate vicinity contain plant species commonly found in an upland, disturbed, non-native grassland, chaparral and woodland habitats. No hydrophytic plant species were observed on the project site; therefore, it was not necessary to examine the other two wetland criteria (hydrology and soils), since all three criteria must be met where wetlands are present. No jurisdictional wetlands will be impacted by the installation of the proposed facility.

3.7 - NESTING BIRDS

The Migratory Bird Treaty Act (MBTA) protects all common wild birds found in the United States except the house sparrow, starling, feral pigeon, and resident game birds such as pheasant, grouse, quail, and wild turkey. Resident game birds are managed separately by each state. The MBTA makes it unlawful for anyone to kill, capture, collect, possess, buy, sell, trade, ship, import, or export any migratory bird including feathers, parts, nests, or eggs.

California Fish and Game (CFG) Code 3503 makes it illegal to destroy any birds’ nest or any birds’ eggs that are protected under the MBTA. CFG Code 3503.5 further protects all birds in the orders *Falconiformes* and *Strigiformes* (birds of prey, such as hawks and owls) and their eggs and nests from any form of take.

The project site contains grassland and disturbed areas that are potentially suitable habitat for common ground-nesting avian species. Additionally, oak woodland and chaparral habitat occurs within approximately 300 feet from the project site, specifically adjacent to the proposed utility trench route, which provides potentially suitable nesting habitat for several avian species. No nests or nesting activities were observed during the field survey.

3.8 - ORANGE COUNTY CENTRAL AND COASTAL SUBREGION NCCP/HCP

Orange County's Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on conservation of species and their associated habitats in Orange County. The purpose of the NCCP/HCP is to maintain biological and ecological diversity within a rapidly urbanizing region. The County approved the NCCP/HCP for the Central and Coastal Subregion portions of Orange County on July 17, 1996. The project site is located in the Policy Plan Area of the Central and Coastal Subregion of the NCCP/HCP.

Approval and implementation of the NCCP/HCP allows for the conservation of large, diverse areas of natural habitat. The Implementation Agreement (IA) satisfies the State and federal mitigation requirements for designated development and adequately provides for the conservation and protection of the thirty-nine species and their habitats identified in the NCCP/HCP.

Land in the NCCP/HCP Policy Plan Area is classified into the following:

- Reserve System Lands
- Special Linkage Areas
- Existing Use Areas
- Non-Reserve Open Space Areas

The project site is located within the boundaries of the Central and Coastal NCCP/HCP; however, the site is not located within the Reserve System and is classified as a Non-Reserve Open Space Area within the Cleveland National Forest area.

SECTION 4: SENSITIVE BIOLOGICAL RESOURCES IMPACT ANALYSIS AND MITIGATION MEASURES

4.1 - SENSITIVE PLANT AND WILDLIFE SPECIES

Focused surveys are recommended for sensitive species that are federally or state-listed as endangered or threatened and have a moderate or high potential to occur on the project site.

- **Sensitive Plant Species:** The project site contains no suitable habitat for any sensitive plant species. Therefore, no sensitive plant species have a moderate or high potential to occur onsite and focused surveys are not recommended.
- **Sensitive Wildlife Species:** The project site contains no suitable habitat for any sensitive wildlife species. Therefore, no sensitive wildlife species have a moderate or high potential to occur onsite and focused surveys are not recommended.
- **Sensitive Plant Communities:** No CNDDDB-listed sensitive plant communities occur on the project site.

4.2 - JURISDICTIONAL AREAS

No potentially jurisdictional waters or wetlands are present on or in the vicinity of the project site. Therefore, installation of the proposed facility will not impact any jurisdictional areas.

4.3 - NESTING BIRDS

The non-native grassland, disturbed areas, chaparral and oak woodland habitats on and in the vicinity of the project site provide suitable nesting habitat for several avian species such as California towhee and Bewick's wren (*Thryomanes bewickii*). To avoid any direct and indirect impacts to any migratory birds and/or raptors, removal of habitat that may support active nests should occur outside of the combined breeding season of mid-February to the end of August. In addition, construction activities adjacent to nesting habitat should also occur outside of the breeding season. If the removal of habitat and/or construction activities adjacent to nesting habitat must occur during the breeding season, the applicant shall retain a qualified biologist to conduct a pre-construction survey to determine the presence or absence of nesting birds on and within 150 feet of the construction area and nesting raptors within 300 feet of the construction area. The pre-construction survey must be conducted within 10 calendar days prior to the start of construction. If nesting birds are detected by the qualified biologist and construction activities must commence during the breeding season, a

biological monitor must be present on-site during construction to minimize construction impacts and ensure that no nest is removed or disturbed until all young have fledged. No further action with regard to nesting birds is required.

4.4 - UTILITY LINE TRENCHING

The entire trench route plans were not included with the site plans provided and therefore the entire trench route is not evaluated within this assessment. According to the site plans provided and on-site discussion with Crawford Broadcasting personnel, utility line trenching will travel generally southwest, along Black Star Canyon Road. All trenching on adjacent parcels will take place within the boundaries of (improved) road easements and will not cause any disturbance to land on either side. Oak woodland and chaparral habitat occurs within the vicinity of the proposed utility trench route, along Black Star Canyon Road, which provides potentially suitable nesting habitat for various avian species. Nesting season avoidance and pre-construction clearance surveys recommended in Section 4.3 will reduce any potential indirect impacts associated with utility line trenching. No further action with regard to utility trenching is required.

4.5 - ORANGE COUNTY CENTRAL AND COASTAL SUBREGION NCCP/HCP

The project site is located within the boundaries of the Central and Coastal NCCP/HCP; however, the site is not located within the Reserve System and is classified as a Non-Reserve Open Space Area within the Cleveland National Forest area. Therefore, loss of habitat for covered species and incidental “take” of covered species is not authorized by the NCCP/HCP and any proposed impacts or “take” will require separate review by CDFG and USFWS, consistent with the requirements of FESA, CESA and the NCCP planning guidelines.

No project design elements are anticipated to result in the loss of native habitat or suitable habitat for any sensitive plant or wildlife species. Additionally, no impacts to species covered under the NCCP/HCP will occur through construction of the proposed project. Therefore, no further consultation or compliance is necessary.

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Appendix A: Field Data Sheets

Biological Resources Assessment Data Sheet

Project Name: KBRT - Oak Flat Tower Site #: _____ Date: 6/10/10

Location: Oak Flats - Cleveland National Forest Biologist/s: Tommy Molino

Time (Start): 1:45pm Time (Finish): 3:00 Temp. °F: 75 Wind MPH: 2-5 %Cloud Cover: 25%

Additional Weather Comments: _____

Plant Community: Non-native grassland Habitat quality: ☐ Poor ☒ Fair ☐ Good ☐ Pristine

Is the plant community sensitive?: ☒ No ☐ Yes (describe)

General habitat description (topography, soils, slope):

Generally flat area w/in Cleveland National Forest. Slightly-sloping (+west) disturbed area. Compacted soils (loam). In the middle of north and south-facing slopes. NNG hillsides

Surrounding land uses:

North: open, radio building

South: open

East: open

West: open

Plant species observed:

wild oat
red brome
ripgut brome
Russian thistle
short-podded mustard
perennial ryegrass

common horseneed
coast goldenbush
tocalote
bindweed
California buckwheat
lupine

bladderpod
fasciated tarweed
golden yarrow
toyon
twiggy wreath plant
white sage

slender buckwheat
red-stemmed filaree
lamb's quarters
bristly ox-tongue
deerweed
chaparral yucca
wild cucumber
reed canary grass
splendid mariposa lily

% native plant species on-site: 10%

Dominant plant species on-site: reed canary grass

avena fatua
red brome

Wildlife species detected on-site:

California towhee
turkey vulture
western scrub jay
spotted towhee
American crow
Anna's hummingbird

Existing structures on-site: ☒ No ☐ Yes (describe)

old radio building to north

Previous disturbances: ☐ No ☒ Yes (describe)

grading, compacting for adjacent developments
and access road construction

Habitat for any special-status species on-site: ☒ No ☐ Yes (describe)

Special-status species on-site: ☐ undetermined ☒ No ☐ Yes (describe)

"Critical Habitat" on-site: ☐ undetermined ☒ No ☐ Yes (describe)

Should focused surveys be conducted for any special-status species?: ☒ No ☐ Yes (describe)

Will impacts be made to any native plant communities?: ☒ No ☐ Yes (describe)

Drainage features on the on-site: ☒ No ☐ Yes (describe)

Will impacts be made to any drainage features?: ☒ No ☐ Yes (describe)

Additional Comments:

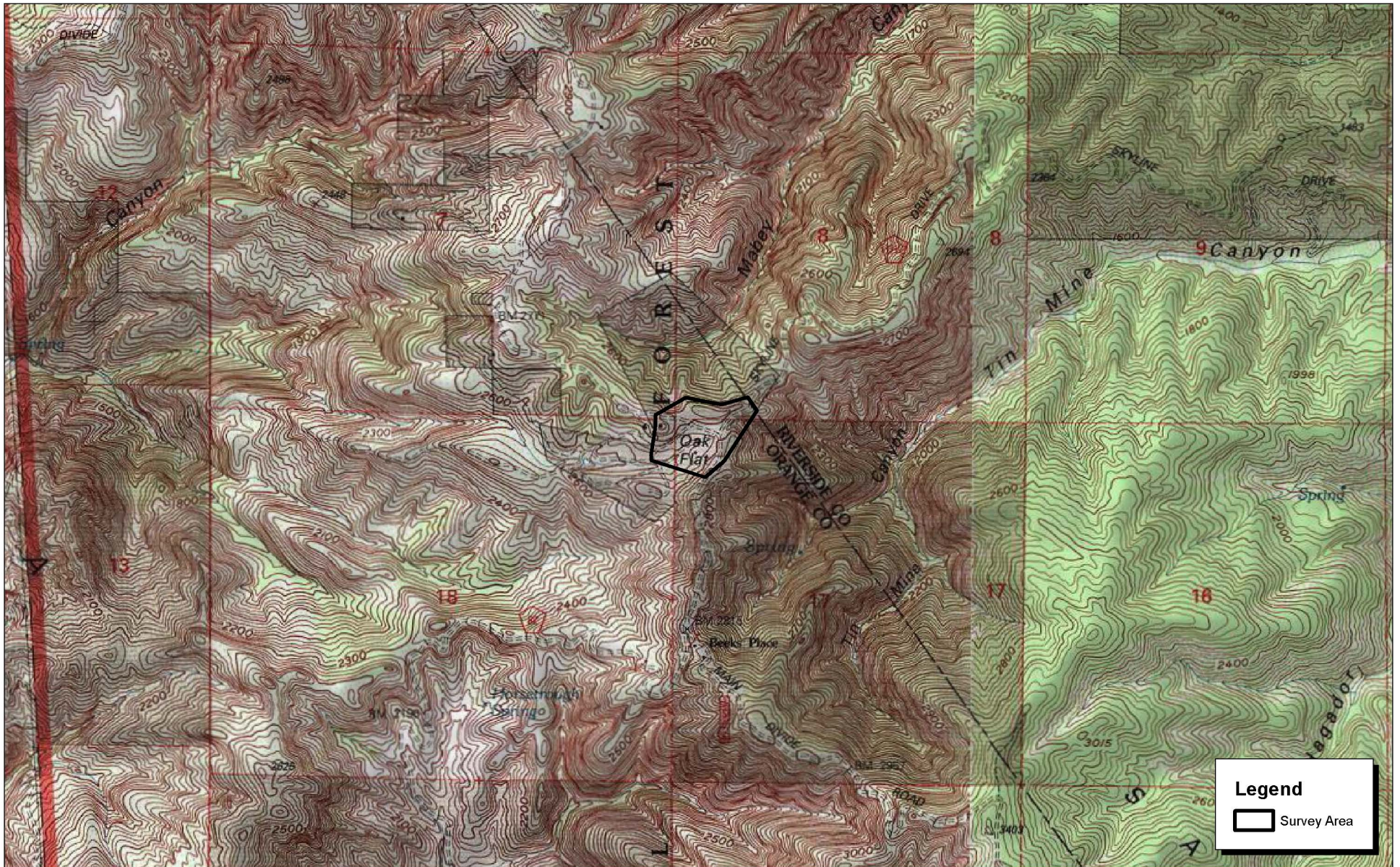
Drainage feature down-slope from project site.



9999CS10 • 09/2010 | 1_regional.mxd

Exhibit 1 Regional Location Map

EBI CONSULTING • KBRT - OAK FLATS TOWER
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Source: TOPO! USGS Black Star Canyon, CA and Corona South, CA (1997) 7.5' DRG.



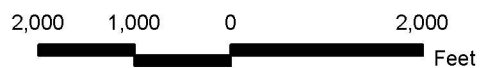
9999CS10 • 09/2010 | 2_local_topo.mxd

Exhibit 2 Local Vicinity Map Topographic Base

EBI CONSULTING • KBRT - OAK FLATS TOWER
BIOLOGICAL RESOURCES IMPACT ANALYSIS



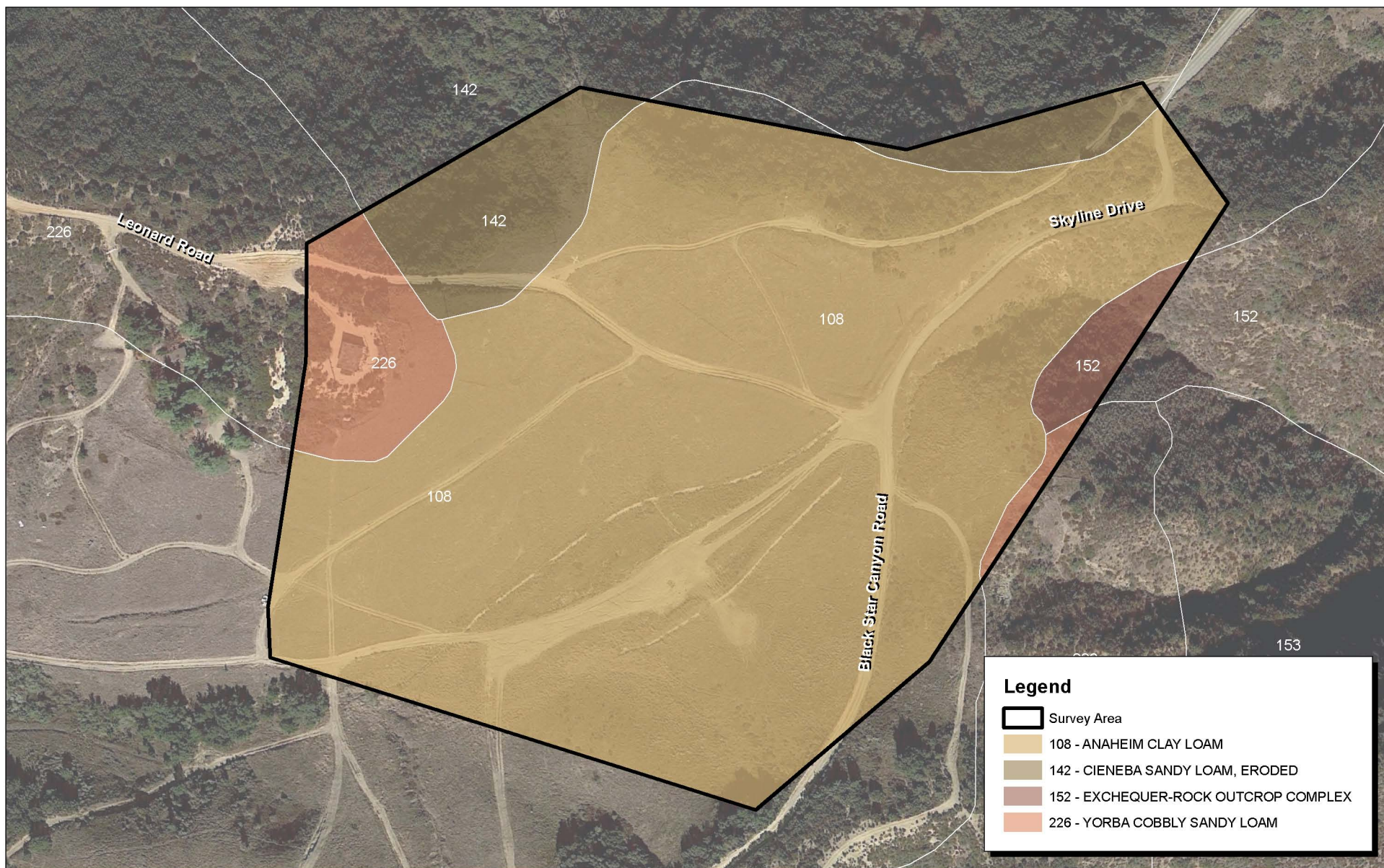
Source: Orange County NAIP, 2009.



9999CS10 • 09/2010 | 3_local_aerial.mxd

Exhibit 3 Local Vicinity Map Aerial Base

EBI CONSULTING • KBRT - OAK FLATS TOWER
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Source: Google Earth Pro, 2009. USDA Soils Data.

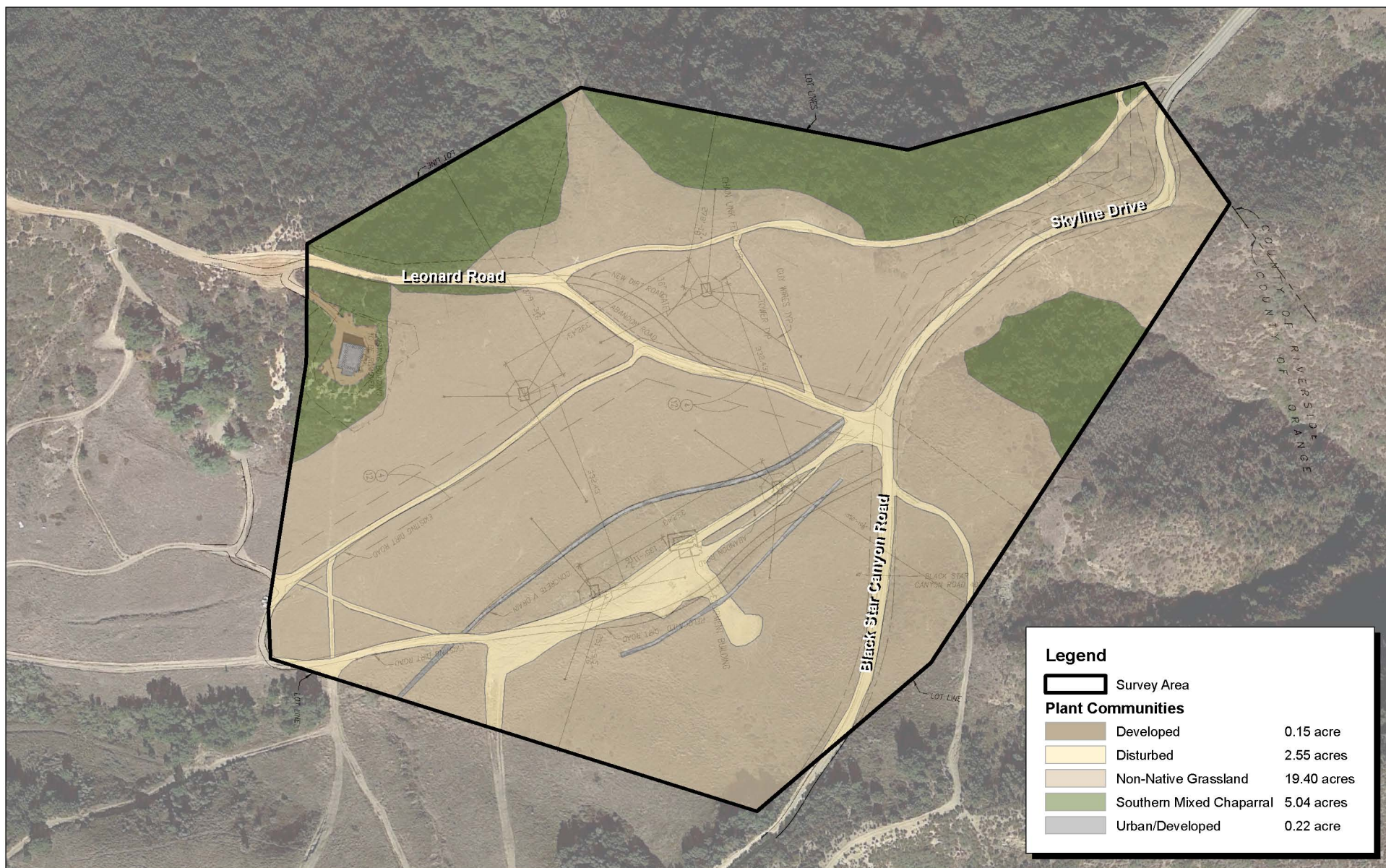


Michael Brandman Associates

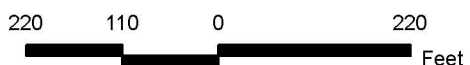
9999CS10 • 09/2010 | 4_soils.mxd

Exhibit 4 Soils Map

EBI CONSULTING • KBRT - OAK FLATS TOWER
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Source: Google Earth Pro, 2009. Ray Grage & Associates, 2009.



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Exhibit 5 Biological Resources Map

EBI CONSULTING • KBRT - OAK FLATS TOWER
BIOLOGICAL RESOURCES IMPACT ANALYSIS



Tommy Molioo
Staff Ecologist

As a Staff Ecologist for Michael Brandman Associates, Mr. Molioo has provided biological resources technical assistance in planning and natural resources management through the execution of various technical field studies and the preparation of various biological resources technical reports for projects requiring CEQA and NEPA compliance. He has independently conducted general habitat assessments and nesting surveys, and has assisted with various focused protocol surveys for sensitive plant and wildlife species, wetlands assessments, and restoration and mitigation monitoring. He has provided extensive biological resources technical support for various wireless telecommunications projects throughout southern California.

PROFESSIONAL EXPERIENCE

- Staff Ecologist for wireless telecommunications projects requiring biological resources impact analyses and project processing throughout southern California, specializing in San Diego, Orange, Los Angeles, San Bernardino and Riverside Counties.
- Staff Ecologist and field biologist for a number of habitat assessments, monitoring surveys, and focused protocol surveys for narrow endemic (rare) plant and sensitive wildlife species. Assisted with monitoring surveys and focused protocol surveys for rare plants throughout western Riverside County, including Marvin's onion and many-stemmed dudleya, and sensitive wildlife species throughout southern California, including coastal California gnatcatcher, least Bell's vireo, desert tortoise, Los Angeles pocket mouse, Arroyo toad, San Bernardino kangaroo rat, and burrowing owl. The surveys involve a general habitat assessment, vegetation mapping, and an inventory of all plant and wildlife species observed, including overall species accounts, nest locations, and behavioral monitoring.
- Staff Ecologist and field biologist for projects requiring habitat assessments, biological resources impact analyses, and local and regional habitat conservation plan (HCP) compliance and strategic planning. Assisted with report preparation for projects within the Multiple Species Conservation Program (MSCP) and Multiple Habitat Conservation Plan (MHCP), including associated County and City Subarea Plans, and the western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Involving preparation of written habitat assessments and conservation plan consistency analysis.
- Staff Ecologist and field biologist for projects requiring wetlands permitting under USACE, RWQCB, and CDFG jurisdiction. Assisted with formal wetland delineations for projects within the arid southwest region.
- Staff Ecologist for restoration projects requiring mitigation monitoring components. Assisted with restoration plan implementation and quarterly monitoring for projects within southern California.

EDUCATION

2008 B.A. Biology, Minot State University, North Dakota

PROFESSIONAL HISTORY

Michael Brandman Associates, Staff Ecologist